

MAHOGANY

EUCALYPTUS

This Cover is an Exact Reproduction of Mahogany Eucalyptus Showing Beautiful Grain Color and High Polish Which this Wood Takes.

YIAGORIAN

Copyright 1903 by
SACRAMENTO VALLEY IMPROVEMENT CO.

St. Louis, Mo.

All rights reserved.

THE information contained in this booklet has been compiled with the greatest care; every statement of fact, figure and estimate has been subjected to the most careful scrutiny of experts competent to give judgment, and at their suggestion we have made some modifications to make the same conform with the facts established by accurate observation and actual experience in growing Eucalypts. In addition to the publicly accessible material to be found in the reports of the United States Department of Agriculture, the California State Board of Forestry, the Forestry Society of California, etc., we have secured the services of such well known and highly regarded experts as Dr. Hermann Von Schrenk, Consulting Timber Engineer, identified with the forestry departments of some of the leading Universities and the world-renowned Shaw's Garden; Dr. Pehr Olsson Seffer, Botanist and Specialist on Eucalypts; W. R. Wheaton, B. S., formerly of the U. S. Forestry Service, and others, through them verifying our statements and estimates in every particular. In short, we have stopped at no effort or expense to make this booklet reliable, accurate and truthful in every particular.

SACRAMENTO VALLEY IMPROVEMENT CO.



Eucalyptus Trees in California.

CHARLES H. PRICE,

PHILADA.

SACRAMENTO VALLEY
IMPROVEMENT CO.

769 Drapel B.
for samples of wood
* further info
H. H. H.

CAPITAL AND SURPLUS, - - \$300,000.00

GENERAL OFFICES:

SUITE 1001-1010 LIGGETT BUILDING
ST. LOUIS, U. S. A.

OFFICERS

CHAS. F. HAANEL	-	-	-	-	-	-	President
CHAS. H. McKEE	-	-	-	-	-	-	Vice-President
W. A. BRANDENBURGER	-	-	-	-	-	-	Secretary
A. R. VERDIER	-	-	-	-	-	-	Treasurer

DIRECTORS

CHAS. H. McKEE	-	-	-	-	-	Vice-President St. Louis Globe-Democrat
D. N. BURRUSS	-	-	-	-	-	President St. Louis Terra Cotta Co.
HENRY KAISER	-	-	-	-	-	Director Franklin Bank
CONRAD BUDKE	-	-	-	-	-	President Nelson Chesman & Co.
LOUIS ESSIG	-	-	-	-	-	President Louis Essig Lumber Co.
G. F. SCHWARTZ	-	-	-	-	-	Sacramento Valley Improvement Co.
W. A. BRANDENBURGER	-	-	-	-	-	Secretary and Counsel
A. R. VERDIER	-	-	-	-	-	Treasurer Verdier Bond and Stock Co.
CHAS. F. HAANEL	-	-	-	-	-	President Sacramento Valley Improvement Co.

EXECUTIVE OFFICERS

J. B. HAANEL, Manager,
1006 Fourth St., Sacramento, California

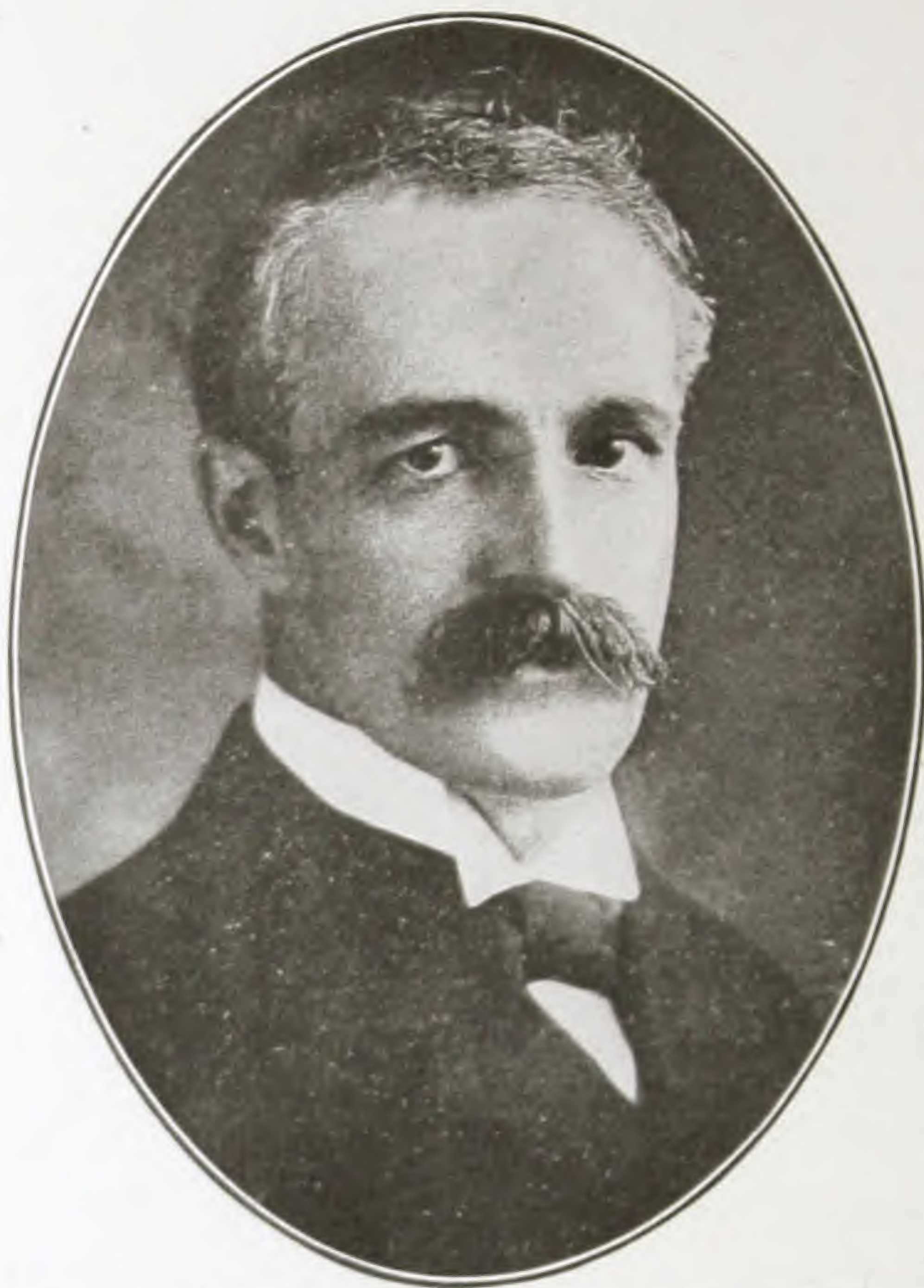
W. R. WHEATON, Forester,
342 City National Bank Building, Los Angeles, California

J. B. DUFFY, Superintendent,
Galt, California

DEPOSITORIES AND REFERENCES

NATIONAL BANK OF COMMERCE	-	-	-	-	-	St. Louis
Capital and Surplus, \$18,000,000.00						
CALIFORNIA NATIONAL BANK	-	-	-	-	-	Sacramento, Calif.
Capital and Surplus, \$1,250,000.00						
CAPITAL BANKING AND TRUST CO.	-	-	-	-	-	Sacramento, Calif.
Capital, \$500,000.00						

DD 87-6835-TCF



Gifford Pinchot, Chief of United States Forest Service.

Especial credit is due to the initiative, the energy, the devotion to duty, and the farsightedness of Gifford Pinchot, to whom we owe so much of the progress we have already made in handling this matter of conservation of natural resources.—Theodore Roosevelt.

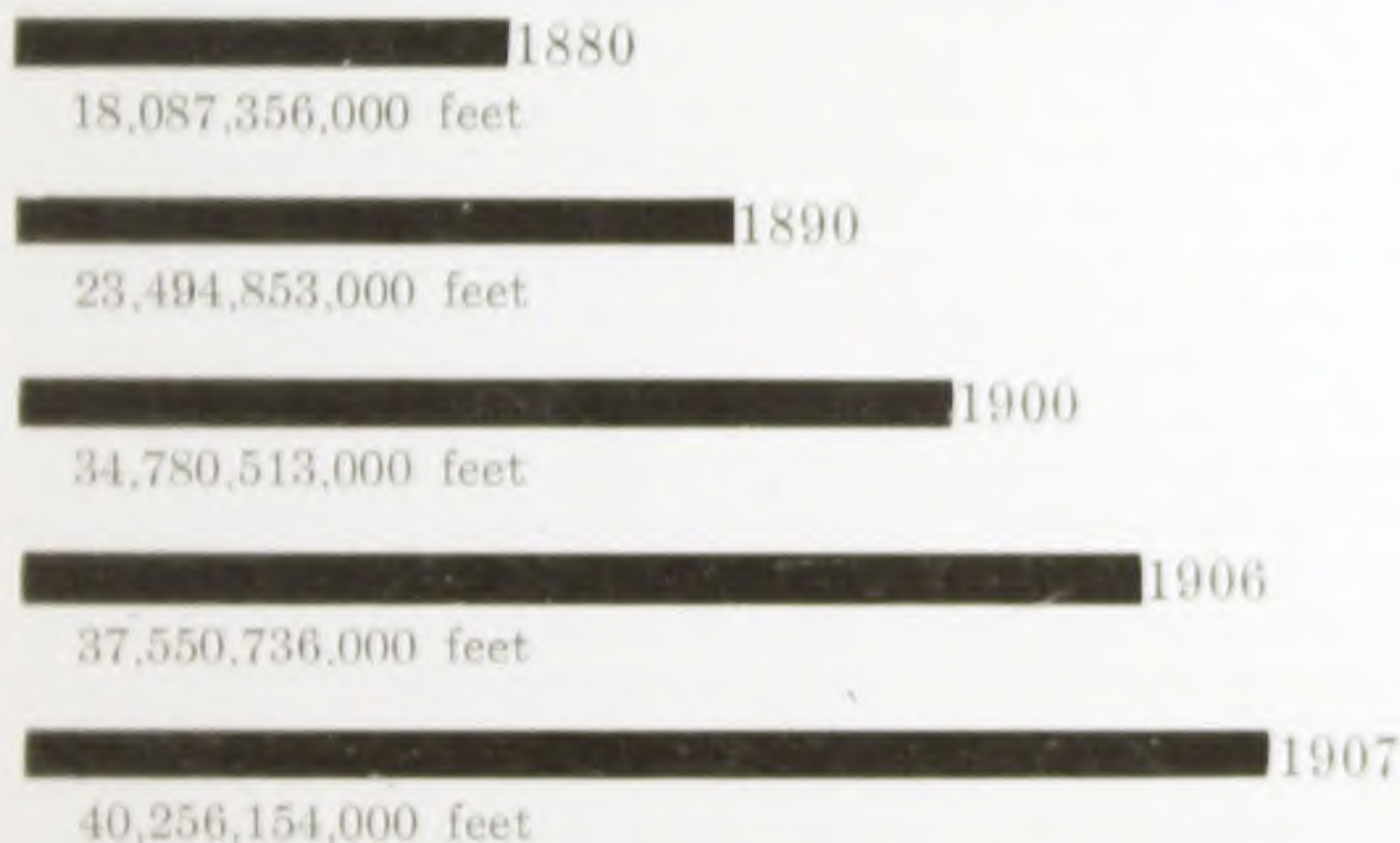
"In twenty years the timber supply of the United States, on government reserves and private holdings, at the present rate of cutting, will be exhausted, although it is possible that the growth of that period might extend the arrival of this time another five years."—Statement made at Washington, D. C., November 6, 1907, by Hon. Gifford Pinchot, U. S. Government Forester.

EUCALYPTUS TREES

THEIR ASTONISHING GROWTH AND COMMERCIAL VALUE.

ONE hundred and ten thousand acres of timber yield only **one day's supply** for the saw-mills of this country. Every day over one hundred thousand acres of standing trees are cut to feed the demand of 28,850 saw-mills which are busy night and day converting the American forests into commercial lumber. Last year, for lumber alone, we cut over forty billion (40,000,000,000) feet, yet this represents only one-half of the timber cut for all purposes.

The rapid increase in the amount of lumber cut can best be shown by the following diagram taken from the census figures from 1880 to 1907 inclusive and reported in U. S. Forest circular 129. The amount of lumber cut has more than doubled since 1880.



Do these figures seem stupendous? They hardly express the situation. The railroads require at present no less than one hundred million ties per year. Add to this four million poles over twenty feet in length used by telegraph and telephone companies and for other uses, seven

and one-half million laths, three million shingles and two billion (2,000,000,000) feet of veneer. All these represent only one year's supply.

There are 2,482 furniture factories constantly busy turning out an annual product valued at \$170,000,000; and 5,143 factories manufacturing vehicles worth \$150,000,000; 712 cooperage concerns are making barrels valued at \$14,000,000 annually; in the mining industry we consume \$16,000,000 worth of mine timbers every year; and the tanneries need \$12,000,000 worth of tan bark yearly.

To supply us with such a trifling necessity as lead pencils we require 7,000,000 cubic feet of high grade wood each year. It is difficult to realize that whole forests are consumed for making matches, and that the very best lumber is required for this little article. Some one has estimated that the world's consumption of matches is 3,000,000 per second. Trees that are not good enough or not large enough for lumber do not escape, for in the trail of the saw-mills come the wood pulp mills converting the small trees, limbs and chips into pulp for paper. Thirty million acres of forests are wiped out of existence every year and not even seed is left for their replenishment.

The price of lumber has doubled during the past ten years and it will in all probability more than double within the next ten years. The United States Bureau of Forestry is authority for the statement that at the present rate of destruction our hardwood timber supply will be exhausted in sixteen years. The attention of the nation has been focused upon the impending peril by the recent Conservation Conferences and International Conventions which have been called for the conservation of our national resources. The note of warning has become a cry. Timber is as necessary as bread. It cannot be dispensed with. Our industries, our manufactures, our transportation, our commerce, are all dependent upon it. Their very existence is threatened; they are growing, by leaps and bounds, and will require a constantly increasing supply. What, then, is the solution of this momentous problem? The situation is unique and unprecedented; it is a situation in which the Government of the United States is deeply interested and the solution lies in the following statement taken from the Government Forestry Circular No. 97: "In a few years California will be the only source of hardwood

supply in the United States." Eucalyptus is the tree which is destined to avert the gravest commercial crisis in the history of the nation. The task is a gigantic one. Thirty million acres of timber a year; in 1905 we consumed twenty-five billion feet of hardwood alone. Think of it! Twenty-five thousand million (25,000,000 - 000) feet of hardwood. Think of the task of supplying such a demand—the greatest demand of the greatest country in the world. It almost staggers the imagination. One hundred million trees would only be a start; one million acres would not be one month's supply.

Eucalyptus is in many ways the most remarkable tree known. It is a native of Australia, where it has been used for over 300 years, and was introduced into California about sixty years ago. There is, therefore, an abundance of authoritative information relative to its growth, uses and value from such sources as the United States Bureau of Forestry, the California State Bureau of Forestry, the Australian Government and eminent United States and foreign forestry experts. Eucalyptus grows five times faster than any other hardwood tree. For wharf piling, telegraph poles, railroad ties and posts, it is extremely valuable. It has no diseases. Cut down, it grows from the stump more vigorously than ever.

Eucalyptus will grow in many places, but for maximum commercial results ideal conditions must obtain. Only a small percentage of the area of California is suitable for the best growth of Eucalyptus, and outside of that State a very much smaller area can furnish proper conditions. The claim that almost any land will properly grow Eucalyptus is utterly absurd. The value of the wood warrants the use of the very best soil and the most painstaking care. The most careful thought must be given to the proper selection of species and the fitting conditions to the natural requirements of each species.

A wealth of information has been obtained through careful, painstaking scientific investigation, which serves as a substantial and dependable foundation upon which to build this great, commercial enterprise. The production of Eucalyptus timber for commercial uses has passed beyond the domain of experiment. It has become an important industry and bids fair to become one of the greatest sources of wealth and profit that the State of California, with its many enormous opportunities, affords.

At one time, Australia, the home of the Eucalypts, was not only the source of Eucalyptus lumber for commercial uses, but also the source of all the scientific data regarding this wonderful genus of trees. The great value of Eucalypts has during the past one hundred years been recognized the world over, and wherever a tropical or sub-tropical climate obtains, these trees have been introduced and thrived. In California, during the past sixty years, sufficient has been learned to recognize that the Eucalypts deserve attention that the native trees do not warrant, and that the growth of Eucalypts for commercial purposes is a road to wealth the magnitude of which can scarcely be appreciated.

In Australia one species has been known to reach a height of four hundred and eight feet, with a basal diameter of twenty-six feet. Other species reach only an indifferent height and girth. All species are intolerant of severe frost, and should not be commercially planted in situations where a temperature of less than twenty degrees Fahrenheit is to be expected. Other climatic conditions serve to limit the area where the trees can be profitably grown.

The rapid growth of Eucalypts from seedlings to marketable timber in the Sacramento Valley, California, is partially explained by the fact that in this climate the trees do not encounter the setback of rigorous winters, but enjoy practically a constant growth, as compared with hardwood trees in other climates, where the winter check has to be reckoned with.

A rapid-growing tree, of course, requires and consumes in the process of growth great quantities of water, so that the soil and climate which provides this essential also insures rapid growth and rapid wood production. In fact, when these trees are planted under ideal conditions of soil and climate, the resulting growth is astonishing, and under such conditions have made a growth double that which has been claimed as reasonable.

The chief product of these trees is, of course, wood; wood for lumber; wood for poles; wood for a thousand uses that cannot be enumerated. Some of the species yield the Eucalyptus oil of medicine; some are the source of commercial Kino and tannin extract; but these products are negligible as compared with the chief product—wood—especially so, in the face of the increasing consumption and the extermination of our natural forests.

Among the most important species are the hardwood species, *Rostrata* and *Tereticornis*, also very properly called Mahogany Eucalyptus. These species of Eucalyptus produce excellent timber. They can withstand a wide range of temperature and great variation in soil, and have demonstrated their power to endure great heat, and even slight frosts, which are of occasional occurrence in California. They have demonstrated their ability to survive drought. Water, even when it comes in the abundance of floods, is only a benefit, and, still more important, Eucalyptus Mahogany is practically immune from destruction by fire, when in a growing condition. Ordinarily the question of timber ownership is scarcely separable from fire hazard, but here again the Mahogany Eucalyptus is unique. It is remarkably resistant in this respect, and only when it becomes a cut log and has been dried and seasoned is it subject to being consumed by fire. Its immunity from fire is one of its great advantages.

These trees are remarkable consumers of water, and thrive best where there is a constant, assured supply of water beneath the soil throughout the season. The Eucalypts send their tap roots long distances to get to water, and however dry the surface of the land may be, even through drought these tap roots insure a continued growing and thriving of the tree.

Mahogany Eucalyptus yields a timber, which is extremely hard, strong and durable, approaching American Hickory in its adaptability to manufactures.

The Sacramento Valley Improvement Company, when entering the field of Eucalyptus timber production, availed itself not only of the publicly accessible information obtainable from the United States Department of Agriculture Bulletins, the information issued by the California State Board of Forestry, the Agricultural Experiment Station of the College of Agriculture of the California State University, but expended great sums in private investigations, obtaining the advice of renowned experts, including Dr. Pehr Olsson-Seffer, who was for three years in the employ of the Government in Australia, the home of Eucalypts, and who spent several years at Leland Stanford, (Jr.) University in California. The Company also sought the advice of the well-known timber experts, Von Schrenk, Fulks & Kammerer, Dr. Hermann Von Schrenk, the senior member of the firm, being a recognized authority on timber pro-

duction and preservation, and having under his charge the responsibilities of maintenance of way of six of the largest railroad systems in the United States. The Company has also secured the services of Mr. W. R. Wheaton, formerly connected with the United States Department of Agriculture, Forest Service, an expert who is especially equipped with technical information regarding Eucalyptus, Mr. Wheaton now being the Company's forester.

No time, pains or expenditure have been spared to put the Company in possession of all the facts of importance and interest which might be conducive to serving its clients and obtaining maximum results in growth and values.

It is a great mistake to imagine that Eucalyptus may be grown easily on any soil without care. The very reverse of this is true. The greatest care must be used in the selection of soil, if rapid growth is the end desired. To obtain marketable timber in the shortest time, the original cost of land should not be considered. The object should be to obtain the best. No less important is the necessity of providing proper nursery stock. The selection of seeds, the obtaining of seeds true to name and the avoidance of hybrids can not be too greatly guarded against. The germination and propagation from seed is no child's play, but requires expert handling. Proper conditions must govern the planting of the trees, which should be done under the care and direction of expert, experienced and scientific foresters. The land should be properly laid out with roads or lanes provided to admit of easy access and frequent cultivation.

When Eucalypts are thus properly grown they are the hardiest of trees; land once planted to Eucalyptus on which the trees have gotten a good start will produce timber for many generations. The trees may be cut any time after the fourth or fifth year, and the stumps will at once throw forth shoots, which under the proper and judicious care of the forester in utilizing the thriftiest shoots, rapidly produce a second growth more quickly than the first. This coppice growth makes a Eucalyptus estate an income-producing property for many generations.

USES OF EUCALYPTUS

INTERIOR FINISH.

EUCALYPTUS is used for interior finish and trim for public buildings, residences, railway coaches, Pullman cars, and is usually imported under the name of Australian Mahogany. Bulletin 5 of the Forestry Society of California states: "It has been ascertained that the present price of finish Eucalyptus lumber is \$125.00 to \$140.00 per thousand. The different varieties of Eucalyptus lumber vary somewhat in price; the kinds used in interior trim, furniture, cabinet work, etc., bring higher prices than the kinds used for heavy construction."

The wood is very hard and susceptible of a very high piano finish. The grain is very similar to Peruvian Mahogany and when finished in the same shade many experts cannot detect any difference. These varieties are called Mahogany Eucalyptus and in Australia are classed as mahogany. There was a time not long ago when Peruvian Mahogany was unknown to the general public and would not be accepted in specifications for interior finishing, but as people became familiar with the beauty of this wood they began using it. The same is true with the so-called Australian Mahogany. Very few people are familiar with its beauty. Those who have seen it and examined it closely are perfectly frank to say that it is a beautiful and desirable wood. It has, therefore, been used and its use is increasing rapidly—so rapidly that it is next to impossible to find a piece of this wood in California sufficiently large to make a veneer for a table top or door panel.

It has been ascertained that Australian Mahogany has been used in many residences without the owners' knowledge. The wood is really Eucalyptus. No deception has been practiced, because the mahogany varieties of Eucalyptus are commonly called Australian Mahogany.

A former foreman of the carpenter department of the Pullman car shops makes the statement that Eucalyptus has for years been largely used in finishing Pullman coaches. It has been ascertained that this wood has also been used by other car builders for finishing, and that other varieties of Eucalyptus are used in the construction of cars. The entire interior finish of the Grosse Building, a large substantial office building, corner Sixth and Spring Streets,

Los Angeles, is finished in Eucalyptus. Messrs. Train & Williams, the architects, say: "The finish is pleasing and as beautiful as mahogany. The desirability of the wood is great. We believe that the use of this wood should be encouraged by architects, as it is eminently satisfactory."

FURNITURE

The beauty of the wood has appealed to many who have placed orders for odd pieces of furniture. This has led to a considerable demand and has called the wood to the attention of furniture makers and dealers, who are now fully awake to the possibilities of the wood. Manufacturers say that Eucalyptus is suitable for any kind of furniture and is a beautiful wood for the purpose. Nearly all the California furniture manufacturers have made up some pieces. It takes a high piano finish or a dull finish, shows its grain to perfection and takes any color or stain desired.

It may be worked up solid or in veneer the same as any other desirable hardwood. When properly seasoned it does not warp, check or twist, neither does it open at the joints.

Mr. Chas. Glum, representing a large Philadelphia furniture manufacturer, is reported by the San Rafael Independent as having said: "We have been on the coast for several weeks with a view of acquiring lands for the growing of Eucalyptus trees. The rapid disappearance of the Eastern hardwood has compelled the Eastern manufacturers to look around for a substitute for the same. They have ascertained that the Eucalyptus is the solution of the problem." As to the quality of the wood compared with oak, he was of the opinion that the Eucalyptus was a harder wood and more suitable for furniture purposes, that it was easily cured and took a better polish. "It will be necessary for us to move our factories to this coast; in fact, all the large Eastern manufacturers are working along the same lines."

Mahogany Eucalyptus is best adapted to cabinet work because of the exquisite beauty of the grain, which resembles Mahogany, and is just as beautiful. In fact, most of the wood used was imported under the name of Australian Mahogany. The retail prices for this wood are from 12½c to 14c per board foot.



A Grove of Cultivated Eucalyptus Trees Six Years Old

WAGON BEAMS, FARM IMPLEMENTS, ETC.

The scarcity of good second growth hickory has caused the manufacturers of all sorts of implements which require hard, tough wood to take notice of Eucalyptus. The White and De Hart Company of Watsonville, Cal., state that they have used it for wagons, wagon reaches, poles, etc. Mr. T. J. Gillespie, manager of the Hardwood Planing Mill Company of San Jose, states that they are operating almost exclusively in Eucalyptus wood, because it is the best hardwood in California for high-grade work. He states, "This wood is used in lieu of second growth hickory, ash and oak and is considered equal to any of them." Sells Brothers' Circus of Fresno have repeatedly stated that Eucalyptus is the strongest and toughest hard wood for tent sticks and wagon poles, and outlasts the best second-growth hickory. Plow beams, felloes and spokes are turned out in large quantities by the Hardwood Planing Mill of San Jose. These are in use throughout the State of California. There are several varieties of Eucalyptus highly suitable as substitutes for hickory, oak and ash in manufacturing all kinds of implements and utensils requiring strong timber. In Australia these woods are said to be replacing American hickory almost entirely in the factories on the Coast. As implement handles this wood is ideal, because it is perfectly smooth and does not splinter or split. Farmers use this wood for spokes, hubs, reaches, felloes and carriage boxes.

POSTS, POLES, TIES.

That some varieties of Eucalyptus are superior to nearly every other timber for use in contact with the ground is a demonstrated fact. Tests and investigations made by the Southern Pacific Railroad, Santa Fe and Queensland Railways prove that fence posts, telegraph poles, cross ties, box drains, etc., of this timber have superior lasting qualities.

Oak railroad ties are worth from 50c to \$1.00 each. The prices for ties have been advancing almost constantly, and it is not at all unlikely that five years hence they will cost twice as much as at present. Telephone poles of Southern Pine and other suitable wood are worth \$8.00 to \$26.00 each, according to their size. Railroads

are already importing millions of ties and are making contracts for ties years in advance—100,000,000 ties are used every year. The Telephone, Telegraph and Electric Light Companies report the purchase of 3,493,035 round poles exceeding 20 feet in length during 1906. We cite the above facts and statistics to show that when the right sort of Eucalypts are grown and ready for market it will not be a question of finding the buyers but of the buyers finding the trees. Every tree big enough for poles will be worth \$5.00 or more and every cross tie will bring its full price. No one will deny that wood which will last in the ground from twenty to forty years will be in demand for many commercial uses. No substitute for wooden cross ties has ever been found that has proven practical in use.

The subject is so grave that one great railroad system has sent its tie and timber expert around the world to seek a satisfactory solution; that railroad system is now planting Eucalyptus, a solution which every system will probably eventually adopt.

PILING, BULKHEAD, ETC.

Eucalyptus has been demonstrated an excellent timber for wharf piling and its use is quite general along the entire California coast. Eucalyptus poles outlast any other wood in general use and are therefore in great demand. The wood is very dense, hard, close-grained and tough, and will bear a tremendous load or strain. Poles twelve to twenty-four inches in diameter at the base and of corresponding length are worth \$20.00 to \$30.00 apiece. A contractor at El Pismo makes the statement that he paid an average of \$8.00 each for Eucalyptus poles thirty feet long. He went through the country buying up trees and logs wherever he could find them, and in this way claims to have picked up snags which were worth \$16.00. He further states that it would be impossible for him to duplicate his purchase at this time, and that the average price for thirty-foot poles would be double the price he paid. For piling and poles the market is tremendous and the profit likewise.

The extension of our coastwise trade and ocean commerce necessitates great extension of wharves in all important harbors. There will be a marked increase in the de-

mand for new wharves, and then will come a demand for the renewal of piles in the old wharves.

MINE TIMBERS, ETC.

An ideal mine timber must possess great strength, density and ability to withstand the most severe conditions underground and on the surface, in water and out of it. Eucalyptus fills these requirements as no other wood can. The market for mine timbers, already a great one, is ever increasing as additional mineral resources are discovered, developed and extensively operated. The almost incredible total of two and one-half billion feet of timber was consumed in mine operation in 1905. One hundred thousand acres of commercial Eucalyptus could hardly supply this one item of our national lumber bill.

The Epitaph, of Tombstone, Ariz., April 19th, 1908, says: "Yesterday five or six carloads of large Eucalyptus poles passed through Fairbanks from the north. They are for bridge building on the new Cananea Nogales branch." Various species of Eucalyptus are used for heavy construction work, bridges, beams, joists, etc. Those which grow straight and tall and grow with fair rapidity are best suited. Therefore it has been much used. Large quantities have been imported. The invoice prices range from \$34.00 to \$45.00 per thousand board feet. These prices are for Australian lumber-yard invoices and do not include shipping, handling or duty, which will probably double the value of the timber in the United States. It is hard to imagine more suitable timber for mines than the hard, strong Eucalyptus. It therefore makes the very best of mine timbers and has been found superior to any other timber for this purpose.

The question of suitable mine timbers is a most important one, especially in a country where mines are plentiful and native hardwood scarce. This industry alone furnishes a market for Eucalyptus.

SHIP BUILDING

Mr. F. S. Stratton, Collector at the Port of San Francisco, is authority for the statement that Eucalyptus woods passing through the port of San Francisco from Australia are largely used for sheathing vessels,

especially those used in Alaskan trade and for side stakes on vessels where they chafe against docks.

FUEL

An immense quantity of Eucalyptus is also used for fuel wood. Most of the groves used as wind breaks have been planted with the idea of utilizing the wood as fuel. This furnishes a market for all of the weakling trees, limbs and crooked trees. The price paid for fuel wood varies from \$6.00 to \$14.00 per cord. Many groves planted exclusively for fuel have proven very profitable.

AN IDEAL INVESTMENT

A Eucalyptus grove makes an ideal investment. Nature is perpetually creating wealth for you; your profits never stop. Neglecting a harvest only adds to the value of your crop when cut. You can always wait if you want to; the longer you wait the more money you get. Every day adds to the value of your estate. Every day these remarkable trees are accumulating wealth for you. Such an income is more certain than any form of rent or interest. It is a permanent, steady, inevitable, perpetual income, subject to no uncertainty whatever. Your trees simply keep getting larger and larger, taller and taller. They have no business but to grow, they never rest and seldom die.

An ordinary telegraph pole of native American wood requires sixty years to grow. A Eucalyptus tree will grow a better, more substantial pole in ten years. There are over 40,000,000 poles of various kinds of wood in use; about 3,000,000 are required annually for renewals. The prices being paid for poles at present by the Pacific Electric Company of Los Angeles is as follows:

35-foot poles.....	\$ 6.00
40-foot poles.....	7.00
45-foot poles.....	8.00
50-foot poles.....	9.25
55-foot poles.....	11.75
60-foot poles.....	12.50

As the supply diminishes and the demand increases, the price will naturally increase; but assuming that the

present price will remain in force and that only 500 serviceable poles will be found on an acre at the end of ten years, we shall have 500 poles at \$5.00, a gross value of \$2,500.00 per acre. The trees on a 50-acre tract at the end of ten years would therefore be worth \$125,000, exclusive of the land on which they grow, and would rapidly enhance in value, as the trees will be getting larger and larger, taller and taller, and every foot will naturally add to their market price. Then, too, we have only figured on 500 trees to the acre, whereas 680 are set out; 500 will be large enough to make merchantable telegraph poles in ten years, but every year will add to the number of available trees.

Whether you buy 5 acres or 50 acres your profit will be proportionately large. You can pay for it cash or in yearly or monthly installments. The unit is 5 acres—the smallest payment \$10.00 per month for a five-acre unit. If you prefer yearly payments you can pay \$120.00 per annum on each unit for eight years. The manner of payment is optional with the purchaser.

For \$1,200.00 per year until \$10,000 is paid we will agree to deliver to you a fifty-acre Eucalyptus grove. We will agree that the soil shall be equal to any, anywhere, for the purpose, climate conditions ideal, transportation facilities unsurpassed. We agree to plant this grove for you and care for it for a period of ten years. You will then have a Eucalyptus estate having a conservative gross valuation of to \$125,000.00 for which you have paid only \$10,000.00.

Is this proposition worth consideration? Is there any other way in which you can create an estate of this magnitude in this short space of time?

Care has been taken in compiling this booklet to make the statements it contains conservative and consistent with the data published by the highest and most respected authorities. They can therefore be accepted without reserve as being well within the results which scientific forestry will attain.

The following interesting article concerning the Eucalyptus recently appeared in the Los Angeles Examiner:

PROFIT IN THE EUCALYPTUS

NO industry in California has a brighter future than the growing of Eucalyptus trees. Is it any wonder when an acre of them will yield in seven years a crop worth \$2,500? This is their value on a basis of commercial development. Considering the fact that they need but little cultivation, can an acre of ground applied to any other product bring such gratifying results?

Eucalyptus trees have long been valuable for their medicinal and heating properties, but their worth in the commercial world has been known only a few years. Substituting for oak, walnut, maple and the better class of finish timber, Eucalyptus is certain to have a demand which will warrant the plans now made in this country for increasing its growth.

The Eucalyptus tree is originally a product of Australia. From that country many species have been introduced into California, where the soil and climate conditions are favorable to its propagation and growth. The commercial species furnish a remarkable wood. The wood of the timber Eucalyptus is susceptible of a fine finish and high polish. Its great resistance to shrinking, checking and splitting makes it unusually desirable for the finest furniture, fixture and cabinet work.

For all purposes requiring a wood of great strength and density, high finish, proof against rot and decay and the inroads of parasites and insects, the Eucalyptus tree will satisfactorily take the place of cedar, pine and cypress for poles and piling; of oak, hickory and ash in the manufactories; of mahogany and other woods for finest cabinet and furniture use. In fact, the substitute will, in almost every instance, prove more desirable than the wood it displaces.

The Eucalyptus will satisfactorily solve the hardwood problem in point of quality and desirability, but all the efforts of the West cannot produce a supply equal to the ultimate demand. Industries representing an investment of perhaps \$1,000,000,000, producing manufactures to the value of \$1,000,000,000 annually, are utterly dependent on an adequate supply of hardwood timber. California will ultimately be the hardwood center of America, and it must and will produce billions of feet of Eucalyptus timber

every year to avert the famine and rescue the hardwood industries of the nation. A timber so remarkable, an industry of such certainty and promise, demands the most careful attention of every American citizen.

Timber Eucalyptus, properly handled in the nursery, properly planted and fairly cared for, will make a growth averaging fifteen feet in height each year. The trees will be fairly uniform in growth, but not absolutely so. Conditions governing the growing of nursery stock, the planting and care, as well as the soil, moisture and climatic conditions, exert a strong influence on the growth.

The first essential is to propagate trees true to name. It is a basic in this industry as in fruit or berry culture, and there is as great a difference in Eucalyptus nursery stocks as in fruit-tree nursery stocks. The seedlings require expert handling in the nursery, but when properly grown and set to the soil they are the hardiest of trees.

These Eucalyptus may be cut at any time after the fourth or fifth year, and whether cut at four, fourteen or forty years, numerous shoots will spring from the stump. The second growth is more rapid than the first. Within a few years the one hardiest shoot left uncut will have absorbed the old stump. It has been stated that seven cuttings have been taken from the same stump—the same tree cut seven times—and the number of cuttings possible time has not yet determined. Land once planted to Eucalyptus will continue to produce for many generations; unless the world races backward in the consumption of timber, every year's growth will be more valuable.

The timber supply of the United States is fast fading away. Every working day sees the cutting of 100,000 acres of our forests—perhaps 30,000,000 acres per year, and we have less than 700,000,000 acres in all. The future timber supply, particularly hardwood timber, will be one of the greatest economic problems the next generation will be called upon to solve.

The Forestry Bureau has compiled statistics to show that our forests hold perhaps a twenty-five years' supply of all kinds of timber, estimating present rates of consumption. The situation with regard to hardwood alone is more perilous. In 1905 the nation consumed 25,000,000,000 feet of hardwood—less than sixteen years' supply now remaining. Timber has vastly increased in price and

will increase in ever-rising proportion as the supply lessens and the demand increases.

The United States is consuming annually nearly five times as much timber as is growing. As a result, it is obvious what the demand will be in the near future. It will be an utter impossibility to grow an overproduction.

A GREAT PROBLEM

"ONE of the greatest problems before the industrial world today is that of adequate timber supply. A supply of timber, of wood, is vital to human life, and absolutely indispensable to progress and prosperity," writes H. D. Cornell, a well known authority on industrial topics, in the September Grizzly Bear. "The American people did not earn the magnificent endowment of native timber with which they are blessed; they did not acquire it by the sweat of the brow, did not laboriously propagate the millions and billions of forest trees, did not plant them and foster their growth. The timber was here, it was easily taken, and, like many another thing easily acquired is as easily dissipated.

It is time to stop and think. The heritage is fast disappearing and the time is fast approaching when a vast work must be done to maintain a supply of timber—thoughtlessly deemed inexhaustible by a great majority of America's citizens even to this day. But stop! Think! Figure! Be serious for a time and consider the facts as presented by the Forestry Bureau of the United States Government. A few simple calculations will serve to convince every reader that he who plants a tree is doubly blessed.

Considering every wooded acre in the United States, in private and public ownership, the nation holds a scant 700,000,000 acres of wooded area. A tremendous amount of timber. But every working day about 100,000 acres are cut over, partly utilized, largely wasted and reproductively wholly destroyed. One hundred thousand acres each day—30,000,000 acres per year. Cut out the bewildering ciphers and you will be startled to see that twenty-three and one-third years will see the last tree cut. The figures are big, they are comprehensive, covering the whole great nation. Some sections will be stripped in but a few years; other sections will hold to the last. And just one

more strong statement so that the reader may not think the figures unfair: The figures are based on present rate of consumption, whereas per capita consumption is increasing and population is rapidly piling up. And, while exact data are not available to prove the assertion, it is believed that as much timber is consumed and destroyed by forest fires and wasted through inexcusable logging methods as all the timber utilized by man! Allowing for these causes to greatly increase the destruction and consumption of the remaining timber, the twenty-three and one-third years seem alarmingly reasonable.

And the situation with reference to the hardwoods alone is much more menacing. The Forestry Bureau, adopting the largest estimate ever made on remaining hardwood timber, states the United States has standing an available supply of four hundred billion feet. Seemingly an inexhaustible supply until the same bureau estimates the annual consumption at twenty-five billion feet. A sixteen years' supply of hardwoods and the last tree is gone.

The price of hardwood timber has not kept pace with the advance of the soft woods, and yet the advance is almost 100 per cent in the last twelve years. As the supply approaches an end, as the proportion of reserve to increasing demand grows more acute, the price will become prohibitive for a multitude of purposes for which hardwood is now deemed indispensable. The result can be imagined. Commercial depression in its broadest sense, compared to which in its far-reaching effects a full-fledged panic is but a summer's breeze.

The pessimist will mourn over the figures and deplore the waste; the optimist will feel that something will surely turn up and will seek for a remedy to the situation. Whenever the world in its onward march has struck a stone wall in the path of progress something has always "turned up" to clear the way for industrial and economic advancement. A nation was isolated, its commerce limited to narrowest scope, and we find the sailing vessels. Another era and something had to move the stone wall from the path—and steam transportation by water and rail opened up a broader horizon. Again, physical limitations handicapped commerce and industry—the telegraph and telephone cleared the way. Coincident with these steps in commercial advancement science developed the steel industries.

opened up the natural resources of forest and field and mine, until to-day the United States is the most highly commercialized, systematized, specialized, and I might say idolized, nation in the world.

The Pacific Coast will be the salvation of the timber industries—soft woods and hardwoods. Soft woods because they are already here, and before it is too late there will be established a system of conservation, regulation and reforestation which will get the utmost from the timber reserves without depleting timber capital. Hardwoods, because the State of California can grow them. The Eucalyptus will solve that one problem if California will get back of the timber-planting enterprises with sufficient strength. What greater claim for immortality can California hope for than to save the nation from a hardwood famine?

Every native son and daughter knows the Eucalyptus tree, growing from the southern boundary to far north of San Francisco, but not one in a thousand has a real knowledge of the many species, their characterizations, timber value, and the soil, climate and moisture conditions best suited to their growth. Indeed, not one in a thousand but will be surprised to know that the timber of the Eucalypti, particularly the "timber" Eucalypti, or commercially important species, has enormous economic and commercial value. All recognize in the Eucalypti a genus of remarkably fast-growing trees, but do not comprehend the significance of that rapid growth to the hardwood industries and to the industrial life of the State and the nation.

To say that California will one day be the hardwood center of the North American Continent may seem a wildly extravagant statement, yet I do believe it most thoroughly.

Millions of acres of Eucalypti must be planted before the production can equal consumption. We can speak of 700,000,000 acres of native timber lightly and easily, but think of the time consumed, the investment required and the labor necessitated in the planting and cultivation of even 1,000,000 acres. California can plant 10,000 acres each year for 100 years before the first million mark is reached, and, before the first twenty-five years have passed, the consumption will have doubled and the value more than doubled, and the State will be further from a supply than in the very beginning. Ten thousand acres each year is doing well, but it is only a pitiful beginning of what



Eucalyptus Two Years Old at Fair Oaks, Cal. Trees Average 35 Feet in Height

should be done. The next twelve months will witness the planting of at least 5,000 acres. One company, now devoting its entire energies to the propagation and planting of Eucalypti, has growing in its nurseries 2,500,000 Eucalypti seedlings, sufficient to plant 2,500 acres of commercial hardwood forests under its method of planting. Thousands of trees where there should be millions, millions where there should be billions.

If the plea was for the sake of future generations there would be but slight response—such is human nature. But the commercial Eucalypti will produce a quick return, will show a profit to excite the avarice of the most grasping, and they promise that profit in so short a span that even the old are made enthusiastic.

There are many private planting operations assured. Large companies and private syndicates are planning to plant large acreages strictly for private investment. The industry is one which every Californian should support to his utmost. Right now a great deal of Eastern capital is finding its way into the Eucalyptus industry—money which should have been invested by Californians, so that the great profits which must certainly follow might be used in California."

VALUE OF EUCALYPTUS TREES

(A Careful Summary from the Best Authorities.)

AT ten years of age the trees will be of marketable size. The larger trees reaching a height of 125 to 150 feet, and diameter proportionate. Ten years, therefore, seems to be a satisfactory age upon which to base calculations as to the value of the average grove.

Circular No. 2, issued by the State Board of Forestry, gives extensive tables of measurements taken in groves scattered throughout the State of California, growing in all sorts of soil and usually without any care. These measurements include groves which have as many as 1,200 to 1,500 trees to the acre, which indicate from two to five sprouts on each stump. Necessarily such sprouts are smaller than if only one or two had been left to grow on each stump.

These calculations are based upon the measurements as given in the circular referred to, and the average size of a ten-year-old tree grown under these conditions is found to be 11 inches in diameter and 92 feet in height, and con-



Biographical Sketch of W. R. Wheaton.

W. R. Wheaton, the Eucalyptus Expert, having charge of the Eucalyptus development operations of the Sacramento Valley Improvement Company, was born in Worcester, Mass., January 23, 1882. He attended the Public Schools of Worcester and graduated from the Polytechnical Institute of Worcester in 1904, receiving the degree of B. S. in the course of civil engineering. He entered the United States Forest Service in June, 1904, in the Department of Forest Products, under Dr. Hermann Von Schrenk, the well-known timber expert, who for many years had charge of the department for Special Investigations of Timber Diseases and Methods of Preventing same. In October, 1905, Mr. Wheaton was transferred to Los Angeles, being put in charge of a large co-operative contract which the United States Forest Service had with the Public Utilities Companies of Los Angeles, San Francisco and Fresno. He remained in charge of this work until April, 1908, when he turned over this work to one of his assistants in order to take the position of Chief of the Section of National Forest Timbers, in which work he was engaged until he accepted the position of Forester for the Sacramento Valley Improvement Company.

His work in the Forest Service put him well in touch with Eucalyptus cultivation in California and enabled him to gather much original and valuable information on the subject of Eucalypts for the government, his experience and researches covering not only the production but also the uses for Eucalyptus wood.

He is an associate member of the Society of American Foresters and kindred organizations, and has achieved eminence as an authority on Eucalyptus.

taining an average of 119½ board feet of lumber. These measurements were made on Globulus plantations. Special correspondence with Honorable G. B. Lull, State Forester, brings the following letter on this subject:

September 15, 1908.

Secretary Forestry Society of California,
Los Angeles, California.

Dear Sir:

Replying to your letter of September 11th, I have worked out the diameter of an average tree of *Eucalyptus Globulus*, and find the results to be about as follows:

Grove No. 1—7 years old; average tree 10.3 inches in diameter.

Grove No. 2—9 years old; average tree 8 inches diameter.

Grove No. 3—8 years old; average tree 9.4 inches in diameter.

Grove No. 4—7 years old; average tree 8.2 inches in diameter.

Grove No. 5—9 years old; average tree 12.2 inches in diameter.

Grove No. 6—15 years old; average tree 15.3 inches in diameter.

From these figures you will see that it is safe to state that a grove 10 years old will average from 10 to 12 inches in diameter, depending on the conditions under which it is grown.

Very truly yours,

G. B. LULL, State Forester.

In view of the fact that the groves measured were not, as a rule, cultivated, it is to be supposed that any plantation of the rapid-growing varieties will more than equal the measurements given. It is safe, however, for any planter to figure that his trees will average as large. But it is also true that plantations which are properly set and have good care will greatly exceed the present average throughout the State. It is also a fact that in every grove there are a few trees which grow to the extreme proportions, and such trees may be cut at a younger age, thus making room for the smaller trees to develop.

The number of trees in a plantation ten years old also has a bearing upon the value of the grove. At two years of age there should be 600 to 700 thriving trees of the average size. Trees that are weaklings should then be cut out. They cannot amount to anything and they serve only to exhaust the soil. Between two and ten years there should be two or three additional cuttings for the purpose of taking out the weaklings or the excessively large

trees, and the total number of trees reduced to about 500. By this method a grove at ten years of age will contain trees which will average more than the present state average of 11 inches by 92 feet, and will therefore contain a greater number of board feet and will be of greater value.

In placing a valuation upon a Eucalyptus plantation, the basis for figuring should be the value of the lumber contained in the trees. The prices of telephone poles, piling, fence posts, railroad ties and fuel are based upon the board feet measurements. In selling the product of a grove the owner will, of course, figure to dispose of it for a purpose which will pay the highest price, consequently he will be unwilling to sell for any purpose at a lower price than the timber is worth as lumber.

The product of one acre containing 500 trees of the rapid-growing species averaging 12 inches in diameter and having the usual proportions of 14 in., 16 in., and larger trees, will not vary much from an average of 100,000 feet, board measure, of merchantable lumber.

The price at which Eucalyptus lumber can be sold ten years hence is somewhat problematical, owing to the rapid decrease of hardwood, and the constantly advancing prices. Present prices are taken as a basis from which to figure the present value of groves. The different varieties of Eucalyptus lumber vary somewhat in price. The kinds used for interior finish, furniture, cabinet work, etc., bring higher prices than the varieties used in heavy construction, agricultural implements, etc. It is ascertained that the present retail price of finish Eucalyptus lumber is \$125 to \$140 per thousand; Eucalyptus flooring \$100 to \$110; dimension timber used in wagon construction, farming implements, etc., \$80 to \$100.

The stumpage prices now being paid for standing timber vary in accordance with location and shipping facilities. Lumbermen concede that \$25 per thousand feet is fair unless the timber be a long distance from the mills, or inferior in size and shape.

Oak and hickory are worth \$20 to \$50 on the stump, according to location. Hardwood prices are constantly advancing and will undoubtedly be much higher in a few years, but at the present time \$25 per thousand is a safe, fair average.

The grower who, by proper planting and care, produces 100,000 feet of timber on an acre in ten years' time can

safely expect a net return of \$2500. This is not unreasonable and may be accepted as the standard of stumpage value per acre of first-class Eucalyptus of marketable size.

All of the foregoing figures are based upon Eucalyptus trees as they are found today, and do not represent the size or value of trees which are planted in the best of soil and properly cared for. It is entirely probable that the groves now being planted under favorable conditions for timber purposes will more than double the value of the groves now existing in California.—From Bulletin No. 5, issued by the Forestry Society of California.

AN IDEAL LOCATION

IN selecting a tract of land for planting to Eucalyptus, the Sacramento Valley Improvement Company was governed primarily by two most important considerations; first, adaptability of the soil to rapid growth of Eucalyptus; second, proximity to the market. No place in the world is better adapted to the rapid growth of Eucalyptus than the Sacramento Valley in California. Officials of the United States Geological Survey say the Sacramento Valley is the greatest undeveloped region of the country. There is no place on earth where nature more bountifully rewards cultivation than in this valley. The soil is as fertile as along the Nile, and there is grown here a greater variety of plant life than in any part of the country. For this reason the United States Department of Agriculture established in the Sacramento Valley the Federal Plant Introduction Garden, which is the only one in America. In making a selection of a site for this institution a combination of conditions best suited to the cultivation of plant life brought from every part of the world was sought, and this condition was found in the Sacramento Valley. This is the highest tribute that could be paid to any region under the sun.

Eucalyptus of many varieties attain enormous size and proportion in this valley, as has been demonstrated by experience of the past sixty years, and where the roots of the trees have had access to water, the growth of the trees is more astonishingly rapid than that of any other plant known to the prolific soil of California. Our land is particularly choice for Eucalyptus, for the reason that underlying the soil, a few feet beneath the surface, is a stratum of

water to which the roots of the Eucalyptus rapidly find their way. The land enjoys what is known as natural sub-irrigation of the soil, making artificial irrigation entirely unnecessary. Year in and year out, in wet seasons and in dry, the perennial waterflow is there, and the deep-striking tap roots of the Eucalyptus bring it up in all seasons and distribute it throughout the branches, twigs and leaves of the tree. A rapid-growing tree like the Eucalyptus requires enormous quantities of water, the amount transpired being so large that, according to Gifford, swampy soils may be drained by planting these trees. The reason for the constant presence of water beneath the soil of our land is that it lies in the middle of the huge basin known as the Sacramento Valley, surrounded by high mountains covered with perpetual snows which perennially feed the brooks and streams rushing down the mountain sides, from which the water percolates through the soil of the almost level valley, expanding in its course and nourishing vegetation there. Examination of a topographical map of California will show that the whole middle portion of the State is occupied by the Sacramento Valley—to the east lie the snow-capped Sierras, to the west the Coast Range. These mountain chains converge to the north and south, thus completely enclosing the great valley. Abrupt climatic changes are made impossible by these great mountain barriers which afford complete and absolute protection to the valley, which is another very important point when considered in connection with the fact that Eucalyptus will not thrive where the young shoots are subject to severe frosts. The soil is of the character known as alluvial deposit, a rich, sandy loam, free from rocks, stones or boulders, and productive, when planted to Eucalyptus, of astonishing results.

Lastly, and not the least consideration, is the matter of accessibility and proximity to the markets. In this respect we are most fortunate. The Sacramento Valley in which our land is located is traversed and gridironed by railroads in every direction, which are constantly being extended. The transportation facilities are therefore unexcelled, bringing both near and distant markets to our very doors. Land values are constantly rising in the valley, due to increased cultivation of land and ever increasing growth in population. Each succeeding year passes the records of previous years in values report-

ed. The great growth of Sacramento's population is shown by the rapid advance of its real estate values, which have risen in the past five years from 50% to 200%, without anything approaching a boom, but simply a steady, constant, universal enhancement. It is claimed by some, with much show of reason, that our land in ten years will be worth more than \$200.00 per acre, simply the bare land without considering the improvements. Such is a simple statement of one of California's opportunities, perhaps the greatest since the State was discovered.



Dr. Peter Oloffe Soller, Ph. D.

Dr. Peter Oloffe Soller received a degree of Ph. D. from the Leland Stanford, Jr., University of California.

He is Editor of the *American Journal of Tropical Agriculture*; likewise editor of "Tropical Hand-Books of Tropical Agriculture," published by the Macmillan Company.

He has traveled around the world, gathering data for his work in the field of botanical research. He is author of "Queensland, the Land of the Future" (in Swedish); "Letters on Tropical Agriculture" (1907); "Agriculture on various points tropical" (1908); "India, the Land of the Future" (1908); botanical, geological, geographical and agricultural papers in various journals in Europe, America, Australia and the Orient; numerous articles in American, Australian, Swedish, Finnish and Mexican magazines and newspapers.

REPORT OF
Dr. Pehr Olsson-Seffer
ON EUCALYPTUS

Copyright 1909 by
SACRAMENTO VALLEY IMPROVEMENT CO.

Mexico City, 27th January, 1909.

Mr. Chas. F. Haanel, President Sacramento Valley Improvement Co., St. Louis, Mo.

Sir:—

In reply to your inquiry of the eighteenth instant as to my opinion of the Eucalyptus-planting industry in California, in which your Company is engaged, I wish to state the following:

The adaptability of the Eucalyptus to different local conditions and their rapid growth have secured for them an amount of attention which the more slow-growing and fastidious indigenous trees of the West Coast do not deserve. That the Eucalyptus culture is well worth the commercial attention it is receiving has been amply demonstrated in various countries. I have visited the plantations which were established years ago in Algiers, under climatic conditions almost identical with those in California, and the commercial success of these Eucalyptus groves, some very large in extent, is now a well established fact. In India, in Java, in South Africa, in Egypt and in Mexico, Eucalyptus planting for commercial purposes is carried on with decided success.

The California climate is exceedingly well suited for this kind of tree culture, as witness the stands of planted Eucalyptus which reach from one end of the Golden State to the other. Of the different parts of California I know of no part which is superior to the Sacramento Valley for the purpose of growing these trees.

It is of the greatest importance to obtain seed true to the name of the variety it is supposed to belong to. In selecting a species for cultivation the planter should know thoroughly its requirements in regard to soil and climate. I am glad to know that you have selected for your plantation *E. Rostrata* (Mahogany Eucalyptus), which is without doubt one of the best, and at the same time well suited to the climatic conditions of the Sacramento Valley.

I have investigated the matter of the Eucalyptus timber produced in California. I would consider the California timber from Eucalyptus Mahogany not only equal to but superior to Australian Mahogany timber.

Eucalyptus Mahogany is in Australia the most widely distributed, and in its cultivation in other countries it has shown the same adaptability to a wide range of situations. In Australia it grows preferably on river flats, but it also succeeds on mountain sides. I have seen it growing in Southern France on inundated land, slightly saline, and in Italy on dry knolls. I have seen this species flourishing in the sandy desert near the Suez Canal and on the hill-sides near Aden in Arabia. It grew well at an altitude of about 2,000 feet in Java, in a region of abundant moisture, and equally well at sea level in different soils in Ceylon.

The quality of the timber varies with the habitat, and experience has shown that when this tree is grown in a dry climate on a soil with sub-irrigation it produces an excellent timber, very hard and heavy, weighing from 60 to 70 lbs. per cubic foot of seasoned timber.

It is very strong and extremely durable, whether above ground or in water and moist soil. For these reasons it is extensively used as telegraph poles and wharf piles, and for railway ties it is much appreciated in Australia and elsewhere. I have seen ties used by the Government railroads in Queensland which had been in the ground for nineteen years, and were still perfectly sound. The average life of a Eucalyptus Mahogany tie in Australia is estimated at fifteen years.

For wood-paving purposes it is largely used and is very successful. I have seen wharves in Australia, the piling of which consisted principally of Eucalyptus timber, and it was absolutely resistant to *Teredo navalis*. I have personally used it for corner posts and it is not attacked by termites or white ants.

It is also used in Australia for ship building, for houses and for wagons. It is well fitted for veneer, and on account of its close resemblance to mahogany, and the beautifully mottled and wavy graining, it is becoming very popular with furniture makers, decorators, and for parquet flooring, panels, etc.

The color of the timber is generally dark red, and although sometimes rather hard it is probably easier to work than any other Eucalyptus wood.

It also wears smooth and does not splinter as the timber of many other Eucalypts, and for this reason it stands unrivalled for many minor uses.

In regard to its rate of growth I can say that I have measured trees, which to my knowledge were 10 years old, and which averaged 12 inches in diameter with a height of 65 feet. The bole is usually very straight and symmetrical.

Summing up, I would say that from my investigations of the growing Eucalyptus in California and elsewhere I am confident that Eucalypts are eminently suited for commercial culture on a large scale, that the Sacramento Valley in California is very well adapted for certain species of Eucalypts, and that your selection of Eucalyptus Mahogany for this purpose is correct and very good. I would further consider that your statements in your prospectus regarding the rate of growth of this tree in California is conservative, and fully borne out by evidence, and I have no doubt but that you will be able in ten years' time or thereabouts to produce merchantable timber from your plantings in the Sacramento Valley. To my knowledge there are no diseases or natural enemies affecting Eucalyptus Mahogany. The species in question is practically immune to damage from fire while in a growing condition. It is remarkably resistant to drought, but as I understand your lands are sub-irrigated, there is no danger that a prolonged drought would even retard the growth.

It is further evident that there is on the west coast in the immediate neighborhood of your plantation an excellent market for the valuable timber from Eucalyptus Mahogany, and that there is certainly no danger whatsoever of overproduction of timber in the United States or of a decrease in prices. I therefore consider that your undertaking of commercial growth of Eucalyptus is bound to be successful, and that it must give a good return on the capital invested.

Very sincerely yours,

PEHR OLSSON-SEFFER

OUR FORESTER

THE Sacramento Valley Improvement Company has secured for its Forester, to have charge of the planting and care of its Mahogany Eucalyptus properties near Sacramento, California, Mr. W. R. Wheaton, of Los Angeles, California, who resigns his position with the Forest Service, United States Department of Agriculture, for the purpose of forming this connection.

It is stated by those in position to know that Mr. Wheaton's knowledge of Eucalyptus, the uses of the timber and propagation of the trees, was unsurpassed by anyone in the Service. The Company considers itself fortunate in having secured the services of such an expert on Eucalyptus, a man equal to the responsibilities of his position in every way, possessing the capacities of scientific training, technical knowledge and practical experience, so essential for attaining success in an enterprise of this character and magnitude.

Gifford Pinchot, Chief Forester, United States Government Service, who was the first native-born American to take up Forestry as a profession, and who has developed the present forest policy of the United States, says: "To be a good forester a man should combine something of the naturalist with a good deal of the business man. He must have the power of observation, a fondness for nature and the ability to penetrate her secrets; but if he is to succeed he must also have good, practical judgment and the ability to meet and handle men. He must be resourceful and able to stand by himself. He needs a vigorous mind in a vigorous body. He must be of the kind that likes to get things done. If the forester's temperament be practical he will have the chance of sharing in a national work of prime importance to our people, both now and hereafter."

It is due to the fact that Mr. Wheaton combines both the scientific training with the practical temperament and experience that he was sought for the position he now holds. A college man, with a technical education, a decided leaning toward the scientific phase of every subject, and a strong inclination to put his knowledge so gained to practical uses, he has found the Forest Service and the study of Eucalyptus an inspiring field of work, in which his abilities rapidly won recognition. Prof. Hermann Von Schrenk, the well-known timber expert, speaks with much force of Mr. Wheaton's signal abilities in this field of knowledge, and testifies also, like State Forester Lull, to his winning personality.

Forestry Society of California

DEVOTED TO THE PRESERVATION, MAINTENANCE AND
EXTENSION OF OUR FORESTS AND WATER SHEDS
AND THE INCREASE OF OUR TIMBER PRODUCTS

CHAMBER OF COMMERCE BUILDING

LOS ANGELES, CALIFORNIA

November 18, 1908.

Sacramento Valley Improvement Company,

St. Louis, MO.

Gentlemen:

We are in receipt of your literature regarding your Eucalyptus Plantation near Sacramento, this State.

We are very pleased to note that the returns you expected from the Eucalyptus industry are very conservatively estimated. The records of growth in California vary considerably, but bear out your statements. You are very conservative in estimating that only 500 trees will be kept growing on each acre. The value of \$5.00 which you set upon trees at 10 years of age, is likely to be higher because of the natural increase of lumber prices. It is, however, a conservative estimate for the present.

We hope that you will be able to plant your full acreage next spring, because it is to the interest of this State to have our forest area greatly increased and every acre planted is of benefit, directly or indirectly, to the entire nation.

Yours very truly,

FORESTRY SOCIETY OF CALIFORNIA,

BY

Geo E Fairhead
Secretary

GEF..H



OFFICE OF THE
STATE FORESTER,
SACRAMENTO, CAL.

STATE BOARD OF FORESTRY.

JAMES H. GILLET, GOVERNOR
C. F. CURRY, SECRETARY OF STATE
U. S. WEBB, ATTORNEY-GENERAL
G. B. LULL, STATE FORESTER

September 26, 1908.

Mr. Chas. F. Haanel, President,
Sacramento Valley Improvement Co.
St. Louis, Missouri.

Dear Sir:-

Replying to your letter of September 21st, I believe you make no mistake in stating in your prospectus that from planting the trees as you propose, you will have at the end of 10 years 500 Eucalyptus trees on an acre, which will average in diameter 12 inches and will make poles 40 to 45 feet high. Further, that these trees will be worth \$5.00 apiece for poles or piling. I consider this a conservative estimate. In addition to the material available for piles and poles there will be considerable that will be useful for cord-wood.

The prices paid for poles at the present time, by the Pacific Electric Company, Los Angeles, are as follows:

35	foot	poles,	\$6.00
40	"	"	7.00
45	"	"	8.00
50	"	"	9.25
55	"	"	11.75
60	"	"	12.50

Yours very truly,

G. B. Lull
State Forester.

O.B.L./B

RECAPITULATION

THE question "Where will our lumber supply come from?" is the most serious of all problems for preserving the Nation's material prosperity confronting the United States today, and that the U. S. Government so regards it is evidenced by the increasing volume of publications bearing on the subject, the enormous increase in the appropriations for the Forest Service, as well as the energy and resourcefulness displayed by the Government in bringing the seriousness of the situation to the attention of the public.

The destruction of the forests of the United States, although fraught with the gravest menace to the Nation at large, opens up a road to the greatest wealth for the individual whose ambition to acquire a fortune leads him to study the remedy and take part in the only apparent solution.

One hundred thousand acres of standing trees fall every day before the axe making but one day's supply for the 20,000 ever-busy saw-mills and wood-pulp mills of the land. Two years ago the Hon. Gifford Pinchot, United States Forester at Washington, sounded the first audible note of warning of the danger when he made the official statement that "in twenty years the timber-supply of the United States on government reserves as well as on private holdings, at the present rate of cutting, will be entirely exhausted."

It seems but yesterday when this message appeared, yet already a tenth of the time allowed in his estimate has passed, and though the greatest efforts are being put forth to stay the ravages of the inevitable famine the results are scarcely appreciable in the face of the stupendous consumption.

It is to California, the great mother of wonders, that we turn again, as our fathers did in '49 when her gold supply financed the Nation and for the first time made the United States a factor in the financial world; it is to California that we owe the present hope and outlook for the rapid creation of a timber-supply which will afford at least a partial remedy.

We have shown the problem, argued the need for action, and offer in this booklet a solution which meet the case with a providential directness. In the foregoing

pages we have recited so briefly and concisely the facts relating to Eucalyptus Tree Culture in California, the safety of such an enterprise and the profits to the investor incident to it, that the busiest business man will find it worth his while to read it through from cover to cover.

A tree growing four times as fast as any hardwood tree in America, restricted in its habitat to that portion of California which is immune from frost, producing an imperishable wood that grows more valuable each year, encountering a constantly growing demand due to deforestation and forest fires, being an exotic and therefore free from fungus and insect pests, deserves to engage the attention of the most conservative capitalists, business men and investors.

What the Palm is to the Tropics, the Eucalyptus must inevitably become to the Temperate Zone. Yet this statement suggests only faintly its enormous usefulness, aye, the dependence of our race and civilization on its speedy production and general utilization. The palm ministers to the need of simple savages, supplying them with food, shelter and raiment adequate to their primitive needs; a thousand times more valuable to the complex needs of civilized society is the Eucalyptus, as a slight acquaintance with its manifold uses will show:

Telegraph poles (better because impervious to rot under ground).

Railroad ties (Santa Fe R. R. planting hundreds of acres).

Furniture (better than mahogany, quarter sawed oak or walnut).

Veneers and cabinet work (taking a polish like mahogany).

Insulator pins (takes thread almost like iron).

Piers and harbor piling (resists attacks of teredo and limnaea in sea water and twice as durable as Oregon pine), these are only a few of its uses. To these could be added its uses in ship building, architecture, bridges, paving, vehicles, fences, agricultural implements, etc., an inexhaustible catalogue.

Well may the United States Department of Agriculture and the California State Board of Forestry unite in the promotion of an industry which offers the only practical remedy for averting the threatening timber famine. A rapid planting of Eucalyptus is the only hope in sight

to mitigate the terrible penalty which we must pay for the reckless waste and destruction of our forests.

"From 10 to 12 years," says James J. Hill, in a public address before the Conservation Congress, "will see our forests woefully depleted, the timber supply at a low ebb, and many varieties practically exhausted." It is left for the Eucalyptus alone with its rapid growing powers and its great adaptability to human needs, in a measure to supply this loss.

The State Forester says we make no mistake in asserting that from the trees so planted there will be 500 trees at the end of ten years, with an average diameter of 12 inches, and make poles 40 to 50 feet in height, and that these trees will be worth \$5.00 each for poles or piling. "This I consider a conservative estimate", he says and then he quotes the following present prices in proof:

The prices paid for poles at the present time by the Pacific Electric Company, Los Angeles, are as follows:

35 foot poles....	\$6.00	50 foot poles....	\$ 9.25
40 foot poles....	7.00	55 foot poles....	11.75
45 foot poles....	8.00	80 foot poles....	12.50

Permit us to add a final word as to the safety of this investment. Constancy of climate, perfect soil, restricted territory, perpetual growing weather and absence of frost, are some of the factors which Nature contributes here to make the outcome an absolute certainty. It differs in this respect from almost any other investment.

The character and standing of the Directors of the Company, the stability, responsibility and financial strength of the Company which can be ascertained by application of any Mercantile Agency, is also attested by letters from Banks, Bankers, Financial Institutions, and other incontrovertible authorities, and make up an accumulative amount of evidence that leaves no room for doubt on this point.

We issue to purchasers a contract for Warranty Deed Eucalyptus tracts in units of five-acre each by the terms of which he secures for \$200.00 per acre, or \$1,000.00, payable in installments of \$10.00 per month for 100 months, a wealth-producing estate such as the richest man of the country would be proud to possess. When paid for in this way he has acquired an estate of standing Eucalyptus trees worth at least \$12,500.00.

If these figures seem startling, prove them; figure it out yourself. The results are startling only in the way that every really great opportunity is startling at the beginning, before everybody sees it. The discovery in gold in California once caused a stampede such as the world had never before seen. Thousands of men in all walks of life suddenly felt the "gold-fever" burning in their veins. Dropping their tasks without warning, they tracked the wide expanse of the western desert, suffering hardships untold, for the mere chance of finding gold.

California is now again the theatre of a stampede, but it is a silent one, unaccompanied by any spectacular features; it is not based on chance, but on science and common sense. Again men from everywhere, inspired by the same desire to get great wealth, men of imagination, ambition and reasoning power are the factors in this great movement. The placer-miner standing at the stream with his pan, washing the sands for gold was, after all, a pathetic figure, for he was the mere victim of chance, destined perhaps to be wealthy, yet more likely doomed all his life to hard labor at small pay. How different is the situation of a Eucalyptus tract purchaser who, having harnessed his efforts with nature in producing hardwood timber, a world-necessity, knows for a certainty that his gold will "pan out". Without speculation, without fear, without loss of home or change of occupation, he stores up \$10.00 or more each month where it converts itself by simple process of growth into from \$150.00 to \$200.00 for each \$10.00 invested.

You have only to remember in securing a Eucalyptus tract on this plan that you are getting it at a price figured on the basis of the cost of production, whereas your estate with its growing trees in a short time will command a ready market based on the value of your timber, to see how every \$10.00 invested, in less than ten years, grows to ten or twenty times this amount, without further help on your part, and that it rapidly amounts up into big figures, making a fortune in this way.

CHARLES H. PRICE,
PHILADA.

MAHOGANY EUCALYPTUS

This Cover is an Exact Reproduction of Mahogany Eucalyptus Showing Beautiful Grain Color and High Polish Which this Wood Takes.